

REMARKS

Applicant has amended the Claims 1-4. Applicant respectfully submits that these amendments to the claims are supported by the application as originally filed and do not contain any new matter. Therefore, the Office Action will be discussed in terms of the claims as amended.

The Examiner has objected to the disclosure, and pointed out certain informalities. Applicant has amended the disclosure, and respectfully submits that it no longer contains the informalities.

The Examiner has rejected the Claims 1, 3, and 4 under 35 U.S.C. 112, second paragraph. In view of the amendments to the claims 1, 3, and 4, Applicant respectfully submits that the claims now comply with the requirements of 35 U.S.C. 112, second paragraph.

The Examiner has rejected the Claim 1 under 35 U.S.C. 102 as being anticipated by Fye, stating that Fye discloses a seal structure comprising a metal seat ring 34'; and a valve mechanism as including a main body 12 having a flow channel 14, and a plate 16.

In reply thereto, Applicant has carefully reviewed Fye, and respectfully submits that the Figures 4 and 5 taken together with the description of column 4, lines 13-33 discloses a carrier 34' which is simply configured to fit the profile 15 of the valve body, and V sections 92 are provided in the passageway 14. Thus, the V sections 92 in cooperation with the bottom edge 19 of the knife gate 15 provide a triangular opening through the carrier 34' and thus through the valve. Accordingly, Applicant respectfully submits that the description taken together with Figure 4 does not describe the use of a removable metal seal. Still further, Applicant respectfully submits that if there is a seal, the seal is metal on one side and Teflon on the other.

In view of the above, therefore, Applicant respectfully submits that the Claim 1 is not anticipated by Fye.

The Examiner has rejected the Claims 1-3 under 35 U.S.C. 103 as being obvious over Grove, et al., stating that Grove, et al. at Figures 5-7 discloses a seal structure comprising a metal seat ring 112, a valve mechanism including a main body 91 having a flow channel 92 and 93 and plate 94, a seat ring 111 and elastomeric ring sheets 114 and 122 as claimed.

Applicant has carefully reviewed Grove, et al., and particularly the Figures 5-7 and the description of column 6, lines 48-75, and respectfully submits that it discloses a seat ring 112

provided on the upstream side, and an associated ring 111 provided on the downstream side. The seat ring 112 is floated, while the associated ring 111 is not. Still further, Applicant respectfully submits that the description of the seat ring 112 and associated ring 111 does not say that they are made from metal. Still further, Applicant respectfully submits that elements 114 and 122 are resilient means in the form of O rings to provide other seals and to support the floating arrangement of the seating ring 112. In view of the above, therefore, Applicant respectfully submits that Grove, et al. does not disclose each and every element of Applicant's invention as claimed, and the Claims 1-3 are not anticipated thereby.

The Examiner has rejected the Claims 1-4 under 35 U.S.C. 103 as being obvious over Fye and Vanderburg, stating that Fye discloses in Figures 1-3 a seal structure comprising all of Applicant's invention except for the provision of the first elastomeric ring sheet; Vanderburg discloses an analogous valve which further includes a multiple elastomeric ring sheet; and it would have been obvious to one of ordinary skill in the art to modify Fye in view of Vanderburg.

In reply thereto, Applicant would like to incorporate by reference his comments above concerning Fye and Applicant's invention. In addition, Applicant would like to point out that in Figure 5 of Fye and in the description at column 4, lines 33-37, it indicates that the carrier 34' is made from metal and does not provide metal to metal contact on one side of the knife gate 16. However, on the other side is provided a sealing member 15 and O ring 62 which are held in place by carrier 34. Therefore, Applicant respectfully submits that nowhere in Figure 5 is it disclosed that it would provide only a single seal on one side of the knife gate, and that single seal would provide metal to metal contact and would be replaceable.

In addition, Applicant has carefully reviewed Vanderburg, and respectfully submits that Vanderburg does not disclose the use of metal seals. In addition, Applicant's review of the abstract of Vanderburg at lines 7-9 indicates that it merely discloses seals on all sides of the gate member, and this is clearly shown in Figures 2 and 3 with the multiple grooves provided in the rings 28 and 30 into which various elastomeric pieces are provided. Therefore, Applicant respectfully submits that Vanderburg discloses that the seal with the valve blade 8 is provided by an elastomeric and not by a metal.

In view of the above, therefore, Applicant respectfully submits that the combination suggested by the Examiner is not Applicant's invention, and that Claims 1-4 are not obvious over

Fye in view of Vanderburg.

The Examiner further rejects the Claim 5 under 35 U.S.C. 103 as being obvious over Fye and Vanderburg, and further in view of Sparks, stating that the combination of Fye and Vanderburg discloses all of Applicant's invention except for a seal packing; Sparks discloses a seal structure having packing; and it would have been obvious to one of ordinary skill in the art to modify the combination of Fye and Vanderburg in view of the teachings of Sparks.

In reply thereto, Applicant would like to incorporate by reference his comments above concerning Applicant's invention, Fye, and Vanderburg. In addition, Applicant has carefully reviewed Sparks, and respectfully submits that Sparks discloses a valve which is forged in a multiple number of pieces. This plurality of pieces are then assembled together and held together by a means of bolts or screw fitting. As a result, and in order to maintain the liquid tightness, packing is provided between the various pieces which form the valve body. Such packing is shown in Figure 2 at element 11, and this packing is provided between the hub 9 and the body 1. Accordingly, Applicant respectfully submits that Sparks does not disclose a seal packing in the sense of Applicant's invention or for the purpose of Applicant's invention. Therefore, Applicant respectfully submits that one of ordinary skill in the art would not look to Sparks to create Applicant's invention.

In view of the above, therefore, Applicant respectfully submits that not only is the combination suggested by the Examiner not Applicant's invention, but also the combination suggested by the Examiner is not suggested by the art. Therefore, Applicant respectfully submits that the Claim 5 is not obvious over Fye in view of Vanderburg and further in view of Sparks.

Applicant further respectfully and retroactively requests a two-month extension of time to respond to the Office Action, and respectfully requests that the extension of fee of \$225.00 be charged to KODA & ANDROLIA DEPOSIT ACCOUNT NO. 11-1445.

In view of the above, therefore, it is respectfully requested that this amendment be entered, favorably considered, and the case passed to issue.

Please charge any additional costs incurred by or in order to implement this amendment or required by any requests for extensions of time to KODA & ANDROLIA DEPOSIT ACCOUNT NO. 11-1445.

Respectfully submitted,

KODA & ANDROLIA

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